

Dkt. #962-PCT-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Ilaria MELONI and Alessandra RENIERI

U.S. Serial No.: Not Yet Known, corresponding to
International Application No.
PCT/IT03/00134, filed on March 6, 2003,
which claims priority of Italian Priority
No. RM2002A000130, filed on March 8, 2002

Filed Date : Herewith

For : DIAGNOSTIC AND THERAPEUTIC TOOLS FOR THE
X-LINKED MENTAL RETARDATION SYNDROME

Law Offices of Albert Wai-Kit Chan, LLC
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September 8, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

INFORMATION DISCLOSURE STATEMENT

In accordance with his duty of disclosure under 37 C.F.R. §1.56, Applicant would like to direct the Examiner's attention to the following references which are listed below and on Form PTO/SB/08A and PTO/SB/08B (which are attached hereto as **Exhibit A**), and each individual reference further attached as **Exhibit 1** through 13.

1. PCT International Search Report for MELONI, Ilaria and RENIERI, Alessandra, Int'l Application No. PCT/IT03/00134, Filed March 6, 2003, Dated October 9, 2003. [**Exhibit 1**]
2. International Publication Number WO 02/16575 A for UNIV UTAH RES. FOUND; CAO YANG (US); PRESCOTT STEPHEN (US), Published February 28, 2002. "Method of Screening for Inhibitors of Human Fatty Acid-CoA Ligase 4". [**Exhibit 2**]

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3. Cao Y et al. "Cloning, Expression, and Chromosomal Localization of Human Long Chain Fatty Acid-CoA Ligase 4 (FACL4)" Genomics, Academic Press, San Diego, US, Vol. 49, 1998, Pgs. 327-330, XP002932974. [Exhibit 3]
4. PICCINI M et al: "FACL4, a New Gene Encoding Long-Chain Acyl-CoA Synthetase 4, Is Deleted in a Family with Alport Syndrome, Elliptocytosis, and Mental Retardation" Genomics, Academic Press, San Diego, US, Vol. 47, no. 3, February 1, 1998, Pgs. 350-358, XP002257224. [Exhibit 4]
5. Cao Yang et al. "Intracellular Unesterified Arachidonic Acid Signals Apoptosis" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 97, no. 21, October 10, 2000, Pgs. 11280-11285, XP002257225. [Exhibit 5]
6. Malhotra Kiran T et al. "Identification and Molecular Characterization of acyl-CoA Synthetase in Human Erythrocytes and Erythroid Precursors" BIOCHEMICAL JOURNAL, Vol. 344, no. 1, November 15, 1999, Pgs. 135-143, XP002257226. [Exhibit 6]
7. Kang Man-Jong et al. "A Novel Arachidonate-Preferring acyl-CoA Synthetase is Present in Steroidogenic Cells of the Rat Adrenal, Ovary, and Testis" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, Vol. 94, no. 7, 1997, Pgs. 2880-2884, XP002257227. [Exhibit 7]
8. Wilson D B et al. "Discovery Of an Arachidonoyl Coenzyme A Synthetase in Human Platelets" JOURNAL OF BIOLOGICAL CHEMISTRY, Vol. 257, no. 7, 1982, Pgs. 3510-3515, XP002932976. [Exhibit 8]

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9. Minekura Hiroyuki et al. "Exon/intron Organization and Transcription Units of the Human Acyl-CoA Synthetase 4 Gene" BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, Vol. 286, no. 1, August 10, 2001, Pgs. 80-86, XP002257228. **[Exhibit 9]**
10. Cao Y et al. "Expression Of Fatty Acid-CoA Ligase 4 During Development and in Brain" FEBS LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, Vol. 467, 2000, Pgs. 263-267, XP002932977. **[Exhibit 10]**
11. Schafer A J et al. "DNA Variation and the Future of Human Genetics" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, Vol. 16, January 1998, Pgs. 33-39, XP000890128. **[Exhibit 11]**
12. Melonia Ilaria et al. "FACL4, Encoding Fatty Acid-CoA Ligase 4, Is Mutated in Nonspecific X-Linked Mental Retardation" NATURE GENETICS, Vol. 30, no. 4, April 2002, Pgs. 436-440, XP002257229. **[Exhibit 12]**
13. Longo I et al. "A third MRX Family (MRX68) is the Result of Mutation in the Long Chain Fatty Acid-CoA Ligase 4 (FACL4) Gene: Proposal of a Rapid Enzymatic Assay for Screening Mentally Retarded Patients." JOURNAL OF MEDICAL GENETICS, Vol. 40, no. 1, January 2003, Pgs. 11-17, XP002257230. **[Exhibit 13]**

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicants undersigned attorney invites the Examiner to telephone him at the number provided below.

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No fee is deemed necessary in connection with the filing of this IDS. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 50-1891.

Respectfully submitted,

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PTO/SB/08A (02-03)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	Not Yet Known
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Filing Date	Herewith
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First Named Inventor	MELONI, Ilaria
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Art Unit	Not Yet Known
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Examiner Name	Not Yet Known
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Attorney Docket Number	962-PCT-US
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Sheet	1	of	3
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U. S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY			
	2	WO 02/16575A	02-28-2002	UNIV UTAH RES FOUND		

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Application Number Not Yet Known

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First Named Inventor MELONI, Ilaria

Art Unit Not Yet Known

Examiner Name Not Yet Known

Attorney Docket Number 962-PCT-US

10/507145

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	1	PCT International Search Report for MELONI, Ilaria and RENIERI, Alessandra, Int'l Application No. PCT/IT03/00134, Filed March 6, 2003, Dated October 9, 2003.	
	3	Cao Y et al. "Cloning, Expression, and Chromosomal Localization of Human Long Chain Fatty Acid-CoA Ligase 4 (FACL4)" Genomics, Academic Press, San Diego, US, Vol. 49, 1998, Pgs. 327-330, XP002932974.	
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	11	Schafer A J et al. "DNA Variation And the Future of Human Genetics" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, Vol. 16, January 1998, Pgs. 33-39, XP000890128.	

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First Named Inventor

MELONI, Ilaria

Art Unit

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Examiner Name

Not Yet Known

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OTHER PRIOR ART–NON PATENT LITERATURE DOCUMENTS

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